

ABSTRACT OF THE INVENTION

A fiber-reinforced metal-ceramic composite material having a hot ceramic side and a cool metal side and a graded ceramic-metal zone therebetween, wherein the ceramic content of said composite ranges from 100% at said hot ceramic side to 0% at
5 said cool metal side and the metal content of said composite ranges from 0% at said hot ceramic side to 100% at said cool metal side, and wherein said fiber reinforcement is graded by coefficient of thermal expansion from the hot ceramic side to the cool metal side.